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PUBLIC SAFETY AND HOMELAND SECURITY BUREAU AND INTERNATIONAL BUREAU SEEK COMMENT ON AIRBORNE USE OF 700 MHZ PUBLIC SAFETY NARROWBAND AIR-GROUND CHANNELS BY THE UNITED STATES AND CANADA

PS Docket No. 13-87

Comment Date: May 1, 2017

Reply Comment Date: May 22, 2017

The Public Safety and Homeland Security Bureau and the International Bureau (Bureaus) seek comment on arrangements necessary to allow 700 MHz aircraft-borne radios to communicate on airground channels in the 700 MHz public safety narrowband spectrum (769-775/799-805 MHz) along the U.S. - Canada border. In particular, we seek comment on how to best provide reliable and seamless airground communications in the 700 MHz band in the U.S. and Canada, while avoiding undue disruption of existing terrestrial facilities in both countries.

Background

In October 2014, the Federal Communications Commission (Commission) designated eight (12.5 kilohertz bandwidth) channels in the narrowband segment of the 700 MHz band for air-ground communication between low-altitude aircraft and associated ground stations in the U.S. ¹ By designating specific channels in the band for air-ground communications, the Commission recognized the increasingly important role aircraft-borne radios play in public safety communications. ²

The Commission noted, however, that our cross-border agreements with Canada and Mexico for the 700 MHz band apply only to terrestrial land mobile operations along the border, and that neither agreement contemplates airborne operations.³ Consequently, the Commission stated it would consider applications proposing airborne use of the air-ground channels within 315 kilometers of the international borders only on a case-by-case basis until new "coordination zones or international procedures" can be negotiated.⁴

¹ The eight 12.5 kilohertz bandwidth channels were previously reserved for secondary trunking operations. *Proposed Amendments to the Service Rules Governing Public Safety Narrowband Operations in the 769-775/799-805 MHz Bands*; *National Public Safety Telecommunications Council Petition for Rulemaking on Aircraft Voice Operations at 700 MHz*, Report and Order, 29 FCC Rcd 13283, 13289-91, paras. 13-21 (2014) (700 MHz *Narrowband R&O*).

² 700 MHz Narrowband R&O at 13290-91, paras. 15, 18.

³ *Id.* at 13291, para. 20.

⁴ *Id*.

Proposals

Since October 2014, we continue to work with Innovation, Science and Economic Development (ISED) Canada on how best to coordinate 700 MHz airborne operations along the U.S. - Canada border. As a result of these discussions, we have identified two alternative proposals to facilitate airborne use of narrow band channels along the U.S. - Canada border.

One proposal would allow the two countries to share the eight channels that the U.S. designated for airborne use. This approach would be implemented by creating coordination zones extending from 225 to 315 kilometers from the border for coordination of U.S. or Canadian applications proposing airborne use. The alternative proposal would be for Canada to designate a separate set of 700 MHz channels for airborne use in Canada on channels the United States has designated as General Use or State License. Under this proposal, the United States would have primary status on the eight channels that the Commission reserved for air-ground communication in the 700 MHz band. Because the channels would be U.S. primary, operations on U.S. aircraft could be licensed on the 700 MHz air-ground channels without advance coordination with ISED. Similarly, Canada would have primary status on its own set of eight 700 MHz air-ground channels without the need for advance coordination with the U.S.

To implement the alternative proposal, certain terrestrial incumbents in the United States, within given distances from the border, would have to relocate from Canada's air-ground channels to avoid mutual interference. We would work with ISED closely to identify channels that would require the fewest relocations of U.S. incumbent licensees. The required clearing distances would be a function of the maximum altitude allowed for radio-equipped aircraft using the air-ground channels. Currently, the Commission's rules limit 700 MHz air-ground operations to aircraft operating 1,500 feet or less above ground level. Canadian air-ground operations, however, may be authorized at maximum altitudes of 1,500 feet, 6,000 feet or 10,000 feet above ground level, with specific air-ground channels authorized for each of the proposed altitudes.

Comments Sought.

We seek comment on the proposals described above. With respect to the proposal where each country would have its own set of eight channels dedicated to air-ground communications, what are the advantages or disadvantages of such an approach as it affects potential air-ground use of the 700 MHz band by U.S. licensees? How can we best balance the goal of reliable and seamless 700 MHz communication between aircraft and users on the ground against the effects of the proposal on terrestrial U.S. incumbents? Would selection of specific General Use or State License channels for air-ground use by Canada minimize the impact on U.S. incumbents? Are there alternative approaches that would support

⁵ The Commission staff meets with representatives from ISED through the Radio Technical Liaison Committee (RTLC). Staff at the Commission's International Bureau and at the State Department also participate in the RTLC.

⁶ 47 CFR § 90.531 (b)(5)-(6). Although Canada has not yet identified the channels it seeks to designate for Canadian air-ground use, for purposes of this alternative proposal, we assume Canada would select channels from the U.S. pool of 308 General Use or 96 State License channel pairs (12.5 kHz bandwidth).

⁷ 47 CFR § 90.531(b)(7)(i).

⁸ We assume that ISED would designate eight channels (12.5 kHz bandwidth) for air-ground communications in Canada, and of the eight channels, it would permit aircraft to operate at a maximum altitude of 1,500 feet on four channels, 6,000 feet on two channels and 10,000 feet on the remaining two channels.

seamless and reliable air-ground communications along the border, consistent with not unduly affecting terrestrial licensees?

We also seek comment on allowing higher maximum altitudes (up to 10,000 feet above ground level) for some Canadian air-ground channels than the U.S. limit (1500 feet above ground level) currently in the Commission's rules. What are the advantages or disadvantages of allowing higher-altitude use of some Canadian channels to facilitate airborne use of narrow band channels along the U.S. – Canada border? If this proposal is implemented, would it be in the public interest to revisit the 1500 foot altitude limit for U.S. licensees in the existing rules?

Instructions for Filing Comments.

Interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments and reply comments may be filed electronically by accessing the ECFS: http://www.fcc.gov/cgb/ecfs.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

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For further information, contact Mr. Brian Marenco, Policy and Licensing Division, Public Safety and Homeland Security Bureau at 202-418-0838 or via e-mail to brian.marenco@fcc.gov mailto:or Mr. Robert Nelson, International Bureau, at 202-418-2341 or via email to robert.nelson@fcc.gov.

Action by the Acting Chief, Public Safety and Homeland Security Bureau and the Acting Chief, International Bureau.

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